

REMARKS

Claims 1–20 are pending in the present application.

Claim 13 was amended solely to correct a typographic error therein that caused the claim as filed to be incomplete.

Reconsideration of the claims is respectfully requested.

35 U.S.C. § 112, First Paragraph (Enablement)

Claims 4–12 were rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter that is not described in the specification in such a way as to enable one skilled in the art to which the invention pertains, or with which the invention is most nearly connected, to make and/or use the invention. This rejection is respectfully traversed.

The test for enablement is whether the specification, drawings and claims as filed contain sufficient information regarding the claimed subject matter to enable one skilled in the pertinent art to make and use the invention without undue experimentation. MPEP § 2164.01, p. 2100-185 (8th ed. rev. 2, May 2004). The initial burden is on the Patent Office to establish a reasonable basis to question the enablement provided in the specification for the claimed invention. *Id.* at 2100-189.

The Office Action objects to the limitation “first channel-related parameter” in claims 4–5 and 7. Read in context, the limitation “first channel-related parameter” is directed to a parameter characterizing the channel in which burst data is transmitted and used for cyclo-stationary filtering. The specification teaches that filtering of a stationary or slowly-changing channel is performed using

a matched filter as known in the art and described in the specification--that is, a filter having characteristics selected to “match” (offset or compensate for) the distortion effects of wireless channel characteristics on the transmitted signal, specifically a weighted equalizer in the exemplary embodiment of the specification. Specification, page 17, line 15 through page 18, line 5, page 19, lines 2–5, page 29, lines 2–17, page 32, lines 7–18. The weighting values 320 used to form a matched filter from the equalizer in order to offset channel characteristics are thus “channel-related” parameters.

The Office Action objects to the limitation “fading-related parameter” in claims 5–6. As known in the art and described in the specification claims as filed, channel fading is one distortion effect that is compensated by weighted equalization during cyclo-stationary filtering. Specification, page 29, line 18 through page 2, claim 6. The weighting values 320 used to form a matched filter from the equalizer in order to offset fading are thus “fading-related” parameters.

The Office Action objects to the limitation “signal-related parameter” in claims 8–12. However, the equalizer weights required to form a matched filter to compensate for channel effects on a transmitted data burst signal are “signal-related” parameters. Other signal-related parameters include modulation level, Forward Error Correction (FEC) codes, and power level designation. Specification, page 27, line 16 through page 28, line 3.

Therefore, the rejection of claims 4–12 under 35 U.S.C. § 112, first paragraph has been overcome.

35 U.S.C. § 102 (Anticipation)

Claims 1–2, 4, 8–10, 12–14, 18 and 20 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,606,341 to *Kanterakis et al.* This rejection is respectfully traversed.

A claim is anticipated only if each and every element is found, either expressly or inherently described, in a single prior art reference. The identical invention must be shown in as complete detail as is contained in the claim. MPEP § 2131 at p. 2100-73 (8th ed. rev. 2 May 2004).

Independent claims 1 and 13 each recite cyclo-stationary filtering of successive bursts of a received data signal. As used in the specification, cyclo-stationary filtering refers to relying on the assumption that channel characteristics are relatively stationary across successive data bursts (i.e., change slowly relative to data burst rates) to apply equalizer weights computed for one data burst to filtering of a next successive data burst, with the equalizer weights computed for the next successive data burst being employed to update the profile for the respective subscriber station and then used to filter a subsequent data burst. Such a feature is not found in the cited reference. *Kanterakis et al* teaches using the pilot and/or preamble portions of a current data segment to determine the weights for programmable matched filter 315/415 operating on that current data segment, not weights computed from a prior data segment. *Kanterakis et al*, column 4, lines 6–23.

Therefore, the rejection of claim 1–2, 4, 8–10, 12–14, 18 and 20 under 35 U.S.C. § 102 has been overcome.

35 U.S.C. § 103 (Obviousness)

Claims 3, 11, 15 and 19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Kanterakis et al* in view of U.S. Patent No. 5,812,951 to *Ganesan et al*. Claims 5–7 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Kanterakis et al* in view of U.S. Patent No. 5,283,780 to *Schuchman et al*. Claims 16–17 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Kanterakis et al* in view of U.S. Patent No. 4,932,070 to *Waters et al*. This rejection is respectfully traversed.

In *ex parte* examination of patent applications, the Patent Office bears the burden of establishing a *prima facie* case of obviousness. MPEP § 2142, p. 2100-128 (8th ed. rev. 2 May 2004). Absent such a *prima facie* case, the applicant is under no obligation to produce evidence of nonobviousness. *Id.*

To establish a *prima facie* case of obviousness, three basic criteria must be met: First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *Id.*

As noted above, independent claims 1 and 13 recite at least one feature not found in *Kanterakis et al.* Such feature is also not found in the other cited references.

Therefore, the rejection of claims 3, 5–7, 11, 15–17 and 19 under 35 U.S.C. § 103 has been overcome.

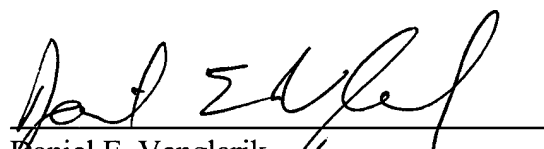
If any issues arise, or if the Examiner has any suggestions for expediting allowance of this Application, the Applicant respectfully invites the Examiner to contact the undersigned at the telephone number indicated below or at *dvenglarik@davismunck.com*.

The Commissioner is hereby authorized to charge any additional fees connected with this communication or credit any overpayment to Deposit Account No. 50-0208.

Respectfully submitted,

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